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CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION REPORT

CD NO. 25X1

COUNTRY Czechoslovakia
SUBJECT Tesla National CorporationDATE DISTR. 28 August 1950
NO. OF PAGES 725X1
PLACE ACQUIRED
DATE OF INFO.NO. OF ENCLS.
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THIS IS UNEVALUATED INFORMATION

1. Affiliation: "CS zavody kovodelne a strojirenske n.p." (Czechoslovakian Metalworking and Engineering Industry).

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The Tesla national corporation in Prague is one of the most influential trusts in Bohemia. The firm manufactures high frequency and low current devices and pertinent equipment. All of the approximately 50 plants in this field in Czechoslovakia are affiliated with this enterprise.

2. Management: 7 Karlsplatz, Prague II (former building of the Philips firm).

3. Production: In addition to the production done by all affiliated plants, the Tesla does development work:

a. Development:

Development laboratories are in the following plants:

- (1) Sixta, Prague-Strashnice
- (2) Mikrofona, Prague-Strashnice
- (3) Telegrafia, Pardubice

b. Production:

Radio gears, incandescent lamps, electronic tubes, low current apparatus, telephones, radar, transmitters, electro-technical parts, telephone exchanges.

- (1) Branch works

- (a) Prague

Factory Hloubetin I in the former Philips works.

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				<input type="checkbox"/> Declassified
				Class. Changed To: TS S G
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production: Commercial radio sets. Types: Kongres, Kranta, Melodik, Talisman, Romance, Rytmus.)

✓ factory Hloubetin II in the former Philips works

Production: Electronic tubes for radio gear.
18 F 24 pentode. Va = 220 V, Id = 15 m.A.,
V = 18, S = 9.5 m.A., Ri = 0.5 m.A.,
final pentode, S = 4.5 m.A.V.

✓ factory Hloubetin III in the former Always Factory

production: Electrical components, e.g. capacitors, resistances and intermediate frequencies.)

factory Vrsovice, former Eta works

production: Transmitting and receiving stations of every description.)

factory Karlin, former Siemens works (Elektrotechna)

production: Telephone exchanges and multiconduit installations, system Carrier.)

factory Malesovice, former Csern Works

Production: Incandescent lamps of every description.

factory Strashnice, former Mikrofona works

Production: Hand-operated phone exchanges, pitphones.

Development laboratories are also in this building.)

factory Strashnice, former Sixta works.

Development plant.)

(b) outside Prague

factory Pardubice, former Telegrafia Works

Production: Special radio sets, telephone exchanges and teleprinting installations. Numerous development laboratories are in this factory.)

Sc 38N 1536E

factory Hohenelbe (vrchlabi), former Lorenz works, Berlin

Production: Electronic tubes and vacuum engineering.
Other less important plants are in Kuttenberg (Kutnahora), Kolin, Prague, Brno (Brno), Mechisch, Leseritsch, Valasske Mezirice and Pressburg (Bratislava).

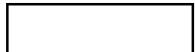
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c. Production is organized on a variety of sectors headed by sector managers. Each section consists of a planning section to execute, and a sales section to accept and distribute orders.

The output of the plant is a 100 percent fulfilment of the five year plan. The quality of the products is not very good because of the material and poor workmanship.

The problem of material is almost insurmountable because of the shortage of non-ferrous metals. Collections from house to house were arranged to alleviate this situation.

(1) Most urgently needed for the production are:

[Cathode cones for electronic tubes, high-grade special alloys for transformers, thin sheets and circular cores for coils. Material from former German stocks is now being used, but these stocks are nearly exhausted. The thin plates and cores come chiefly from Great Britain, the supply from this country thus being of vital importance for this enterprise. The Czech plants, national corporation Prague, in cooperation with the Military Technical Institute (VTU), Prague 2, make experiments for producing an appropriate Czech alloy (permalloy) but have had no success up to now. All leading persons of this plant are former laborers and technical knowledge is considered less important than membership in the party. All activities are handicapped by the organizational structure of the plant (self-administration).]

d. Development

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(1) Center and management of the development work are in the former Mikrofona Works, Prague Strasnice. This section represents the technical brain of all factories. Another development section for electronic tubes is in the Sixta Works, former Always Works (near the street car No 16 terminal) in Mloubitin. The development section for long-distance connections is in the Telegraphic Works in Pardubice. The development section for vacuum engineering is in the former Berlin Lorenz Works in Hohenelbe (Vrchlabi).

(2) The development sections make theoretical suggestions on new apparatus, prepare prototypes and drawings, obtain orders and order their fulfillment. For these studies numerous libraries are available as well as the latest publications of the western world and the complete archives of drawings of the Siemens firm which produced special apparatus there during the war. These archives contain the complete manufacturing records for transformers, measuring instruments, transmitters, amplifiers and other products of the Siemens firm. They also include the complete manufacturing records for the 12-channel system BCA 12 of the Bell Firm, Antwerp, which was made by the Sixta Generst firm in Jarrow during the war.

(3) The whole working of the Tesla, especially in the field of long-distance connections, is based on the work of the Siemens firm, since enormous quantities of unused

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material are stored in their depots in N. Kralovce in Prague Kosire, chiefly Siemens products left behind by the German armed forces. The development sections are divided into the following sectors:

- (a) Physical research, for purely theoretical work in the mathematical and physical fields and for solving mathematical problems of other sections.
- (b) Transmitter sector, dealing with problems of ultra short-wave radio communication.
- (c) Radio Receiver Sector, suggesting new devices and working on receivers for aircraft similar to the "Lark" type (Skrivanek).
- (d) Acoustics sector.
- (e) Long-Distance Communication sector with one section in Pardubice, where a two-band telephone is worked on, and with another section in Karlin where in the former Siemens Firm a 12-channel system is worked on.)

The main laboratory is in Jirashnice in the Mikrofona Plant. There is also a section where 2 to 4-wire amplifiers with a band width of 500 to 3,400 c/sec. and a broad-band amplifier for multi-channel systems for remote action and control are developed. An "Inventor" was recently constructed on the basis of Siemens documents. This apparatus is for voice communication on carrier frequency simultaneously inverting the frequency. This installation was delivered to the Czech armed forces and is also used for secret conversations of government members. It works on a carrier frequency of 2,600 c/sec. Another device produced was for intercepting and recording conversations on phonograph records in the central post offices. It was an exact duplicate patterned from Siemens documents.)

A connection with a coaxial cable based on a French pattern is also to be developed by this section for a standard communication system over all the republic. The manufacture of the coaxial cable is a bottleneck in this plan. The construction of a ring network in Bohemia and Moravia, based on patterns Siemens 30J 12, M 6-15 and BOA 12, to connect town networks so as to establish an automatic inter-town selector network is another plan under preparation at the designing sections in Karlin where the 12-channel system was to be completed by late 1949 so that the construction could be started in 1950. A similar network will probably be delivered to Bulgaria. The development section in Pardubice works on ultra short wave radio on the French pattern. The old German line Prague Berlin is to be used for this project.

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The transmitting station is in Prague at the Petrin and the second station in the Riesengebirge Mts. on the Schneekoppe. The Prague-Trautenau line will be connected to these stations, with the selection of the stations automatically effected. The connection will be continued to Poland which will be supplied with two-wire and four-wire amplifying stations with 18 F 24 electronic tubes as soon as the order has been contracted and cooperation by the two post exchanges has been established.)

25X1 (foreigners also work on the development, an American [redacted] for example, works on a special project relating to airport installations. He solves theoretical problems and forwards the results to the proper sections.)

(A transceiver gear - skriwanek (transmitter receiver gear - Lerche?) is developed for aircraft radio communication but no information is available, the plans being top secret.)

25X1 [redacted] comment:

The vesla is a combine including all nationalized low-current and high-frequency plants in Czechoslovakia.

Main factories incorporated into this corporation are:

1. always-Stuhlhofe, electro-technical factory in Prague-Mloubetin

2. Philips v.G. in Prague-Mloubetin and its trust works:

Elektra v.G., factory for incandescent lamps, Prague
Metallix-Roentgen, Ltd., Prague
Radioelektra, Corp., for the manufacture of electronic
tubes and radio accessories, Ltd.,
Prague

Triotron, Co., for radio accessories trade, Prague.

3. C. Lorenz,Co., Hohenelbe (O 51/G 55)

4. elekrotechna, co., for low-current engineering, Prague/Karlín

5. mikrofona, Anotek brothers, telephone and radio technical
plant, Prague/Strasnice

6. prchal-ericson, co., Kolín (O 51/H 38)

7. Radiotechna, Ltd., Prclovice (O 51/H 58)

8. Siemens-Radio, Ltd., for Czechoslovakia, Bratislava

9. Siemens and Halske, Co., Lanskroun (P 50/N 38)

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I 0 Telefunken Prague, co., for wireless engineering, Prague/
Holesovice

II, Telegrafie, factory for telephone and teletype gear, with
works Pardubice (0 51/.. 79), Jablonec
and Orlice (0 51/P 96), Cezemice (0 51/M 79)

I 2 Tungsram, col., Bratislava

I 3 Blaupunkt-werke, Ltd., Reichenberg-Liberce (0 51/G 16).

On 1 January 1950 this large establishment was subdivided into
smaller independent enterprises along the lines of the general
reorganization of Czech industry. Including the remaining
factory in Prague-Karlin (former Elektrotechna works), the
following 11 nationalized plants arose from Tesla:

Tesla-Strasnice (formerly Mikrofona)
Tesla-Kolin (formerly Prchal-Ericson)
Tesla-Pardubice (formerly Telegrafie)
Tesla-Hloubetin (formerly Philips)
Tesla-Vrsovice (formerly Sta)
Tesla-Roznov
Tesla-Holesovice (formerly Telefunken)
Tesla-Lanskroun (formerly Siemens-Halske, Blaupunkt)
Tesla-Bratislava (formerly Tungsram-Siemens)
Tesla-Elektronice (formerly Always-Stuhlhofe)
Tesla-Karlin (formerly Elektrotechna).

This report gives some details on the activity of various
branch works and their development.

Details on the section for development of tubes in Prague/
Hloubetin (1), on the branch works in Lanskroun (2) on
Hloubetin II (3) and on Bratislava (Pressburg) Racistorfska
610 (4) were previously forwarded. Another report (5) indicates
only the location of the newly erected laboratory of the
experimental plant (formerly Telegrafie) in Pardubice and
gives no details on this plant.

The production of radio receivers in Czechoslovakia (total
output of the Tesla Works) was:

In 1947	162,000 pieces
In 1948	267,000 pieces (scheduled only 200,000 pieces).

According to the Five Year Plan, the output was to be raised
to 300,000 pieces per year.

The output of telephone apparatus in Czechoslovakia (Tesla):

In 1947	72,800 pieces
In 1948	84,200 pieces (scheduled 75,000 pieces).

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The output per year was to reach 150,000 in 1953.
The output of incandescent lamps was:

In 1947	12.45 million pieces (scheduled 13.5 million)
In 1948	14.2 million pieces (scheduled 15 million)

The output quotas of incandescent lamps could not be fulfilled, chiefly because of the lack of glow wires.

Tesla also works in the television field and developed the TV transmitting and receiving station type 901, with a picture transmission of 625 lines and 25 pictures per second.

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